

What is claimed is:

1. An axial-flow fan comprising:

a central hub connected with a driving shaft of a motor;

5 and

a plurality of blades extending radially along the circumference of the hub for blowing air toward an axial direction, the plurality of blades integrated with the hub into a single body,

10 wherein assuming that a camber ratio at a blade root(cr1) of each blade is the value obtained by dividing a maximum camber value at the blade root(cr1) into a chord length, a camber ratio at a blade tip(cr2) of each blade is the value obtained by dividing a maximum camber value at the blade tip into the chord length, and a percentage of decrease of the camber ratio is the value obtained by dividing a difference value between the camber ratio at the blade root(cr1) and the camber ratio at the blade tip(cr2) into the camber ratio at the blade root(cr1), the percentage of decrease of the camber  
15 ratio is in a range between 33% and 85%.

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2. An axial-flow fan according to claim 1, wherein a setting angle of each blade increases from an intermediate region of each blade to the blade tip.

3. An axial-flow fan according to claim 2, wherein the  
25 setting angle increases in a range between 2 degree and 8 degree at a smallest angle point.

4. An axial-flow fan according to claim 1, wherein the camber ratio at the blade root(cr1) of each blade has a greatest value of 0.1 and the camber ratio at the blade tip(cr2) of each blade has a smallest value of 0.01.

5 5. An axial-flow fan according to claim 4, wherein the camber ratio at the blade root(cr1) of each blade has a greatest value of 0.065 and the camber ratio at the blade tip(cr2) of each blade has a smallest value of 0.025.

10 6. An axial-flow fan according to claim 1, wherein the percentage of decrease of the camber ratio is in a range between 50% and 70%.

7. An axial-flow fan comprising:

a central hub connected with a driving shaft of a motor;  
and

15 a plurality of blades extending radially along the circumference of the hub for blowing air toward an axial direction, the plurality of blades integrated with the hub into a single body,

20 wherein each blade has a backward sweep angle at the blade root thereof and a forward sweep angle at the blade tip thereof, while having an airflow distributing region that is defined by a plurality of small regions where sweep angles are changed in turn formed on a region between the backward sweep angle region and the forward sweep angle region, and

25 wherein assuming that a camber ratio at the blade root(cr1) of each blade is the value obtained by dividing a

maximum camber value at the blade root into a chord length, a camber ratio at the blade tip(cr2) of each blade is the value obtained by dividing a maximum camber value at the blade tip into the chord length, and a percentage of decrease of the 5 camber ratio is the value obtained by dividing a difference value between the camber ratio at the blade root(cr1) and the camber ratio at the blade tip(cr2) into the camber ratio at the blade root(cr1), the percentage of decrease of the camber ratio is in a range between 33% and 85%.

10 8. An axial-flow fan according to claim 7, wherein a setting angle of each blade increases from an intermediate region of each blade to the blade tip.

9. An axial-flow fan according to claim 8, wherein the setting angle increases in a range between 2 degree and 8 15 degree at a smallest angle point.

10. An axial-flow fan according to claim 7, wherein the camber ratio at the blade root of each blade has a greatest value of 0.1 and the camber ratio at the blade tip of each blade has a smallest value of 0.01.

20 11. An axial-flow fan according to claim 10, wherein the camber ratio at the blade root of each blade has a greatest value of 0.065 and the camber ratio at the blade tip of each blade has a smallest value of 0.025.

12. An axial-flow fan according to claim 7, wherein the 25 percentage of decrease of the camber ratio is in a range between 50% and 70%.